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(71) Applicant (for all designated States except US): **SHOWA DENKO K.K.** [JP/JP]; 13-9, Shibadaimon 1-chome, Minato-ku, Tokyo 105-8518 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **UDAGAWA, Takashi** [JP/JP]; c/o Showa Denko K.k., 1505, Shimokagemori, Chichicu-shi, Saitama 3691871 (JP).

(74) Agents: **SHIGA, Masatake** et al.; 2-3-1 Yaesu, Chuo-ku, Tokyo 104-8453 (JP).

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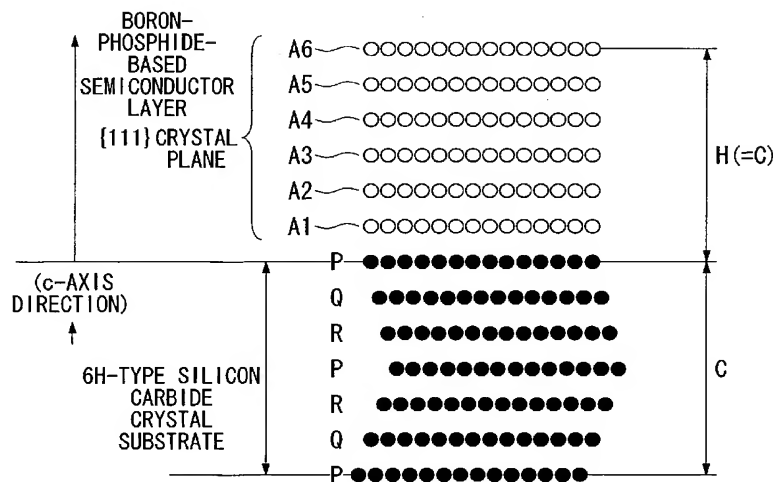
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(54) Title: COMPOUND SEMICONDUCTOR DEVICE, PRODUCTION METHOD OF COMPOUND SEMICONDUCTOR DEVICE AND DIODE



(57) Abstract: A compound semiconductor device includes hexagonal silicon carbide crystal substrate and a boron-phosphide-based semiconductor layer formed on the silicon carbide crystal substrate, wherein the silicon carbide crystal substrate has a surface assuming a {0001} crystal plane, and the boron-phosphide-based semiconductor layer is composed of a 1111 crystal stacked on and in parallel with the {0001} crystal plane of the silicon carbide crystal substrate, and when the number of the layers contained in one periodical unit of an atomic arrangement in the [0001] crystal orientation of the silicon carbide crystal substrate is n, an n-layer-stacked structure included in the {111} crystal plane forming the {111} crystal has a stacking height virtually equal to the c-axis lattice constant of the silicon carbide crystal substrate.

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